

Claims

- [c1] A method of inhibiting the growth of refractory tumors that are stimulated by a ligand of epidermal growth factor receptor (EGFR) in human patients, comprising treating the human patients with an effective amount of an EGFR/HER1 mitogenic ligand (EGFRML) antagonist.
- [c2] A method according to claim 1 wherein the antagonist is a monoclonal antibody specific for EGFRML or a fragment that comprises the hypervariable region thereof.
- [c3] A method according to claim 2 wherein the monoclonal antibody is chimerized and humanized.
- [c4] A method according to claim 1 wherein the antagonist is a small molecule that binds specifically with EGFRML.
- [c5] A method according to claim 1 wherein the refractory tumor has been treated with radiation or chemotherapy and combinations thereof.
- [c6] A method according to claim 1 wherein the tumors are tumors of the breast, heart, lung, small intestine, colon, spleen, kidney, bladder, head and neck, ovary, prostate, brain, pancreas, skin, bone, bone marrow, blood, thymus, uterus, testicles, cervix, and liver.
- [c7] A method of inhibiting the growth of refractory tumors that are stimulated by a ligand of epidermal growth factor receptor (EGFR) in human patients, comprising treating the human patients with an effective amount of a combination of EGFRML antagonist and radiation.
- [c8] A method according to claim 8 wherein the antagonist is administered before, during and after radiation in all temporal combinations with null options included.
- [c9] A method according to claim 8 wherein the source of the radiation is external to the human patient.
- [c10] A method according to claim 8 wherein the source of radiation is internal to the

human patient.

- [c11] A method according to claim 8 wherein the antagonist is a monoclonal antibody.
- [c12] A method according to claim 8 wherein the antagonist is a small molecule.
- [c13] A method according to claim 8 wherein the tumors are tumors of the breast, heart, lung, small intestine, colon, spleen, kidney, bladder, head and neck, ovary, prostate, brain, pancreas, skin, bone, bone marrow, blood, thymus, uterus, testicles, cervix, and liver.
- [c14] A method of inhibiting the growth of refractory tumors that are stimulated by a mitogenic ligand of epidermal growth factor receptor (EGFR) in human patients, comprising treating the human patients with an effective amount of an EGFRML antagonist and a chemotherapeutic agent.
- [c15] A method according to claim 14 wherein the antagonist is administered before, during, and after treatment with the chemotherapeutic agent and all temporal combinations therein including no treatment times.
- [c16] A method according to claim 14 wherein the chemotherapeutic agent is selected from the group consisting of amifostine, cisplatin, dacarbazine, dactinomycin, mechlorethamine, streptozocin, cyclophosphamide, carmustine, lomustine, doxorubicin, doxorubicin lipo, gemcitabine, daunorubicin, procarbazine, mitomycin, cytarabine, etoposide, methotrexate, 5-fluorouracil, vinblastine, vincristine, bleomycin, paclitaxel, docetaxel, aldesleukin, asparaginase, busulfan, carboplatin, cladribine, camptothecin, CPT-11, 10-hydroxy-7-ethyl-camptothecin (SN38), dacarbazine, floxuridine, fludarabine, hydroxyurea, ifosfamide, idarubicin, mesna, interferon alpha, interferon beta, irinotecan, mitoxantrone, topotecan, leuprolide, megestrol, melphalan, mercaptopurine, plicamycin, mitotane, pegaspargase, pentostatin, pipobroman, plicamycin, streptozocin, tamoxifen, teniposide, testolactone, thioguanine, thiotepa, uracil mustard, vinorelbine, chlorambucil and combinations thereof.
- [c17] A method according to claim 14 wherein the chemotherapeutic agent is selected

from the group consisting of cisplatin, doxorubicin, paclitaxel, CPT-11, topotecan and combinations thereof.

[c18] A method according to claim 14 wherein the tumors are tumors of the breast, heart, lung, small intestine, colon, spleen, kidney, bladder, head and neck, ovary, prostate, brain, pancreas, skin, bone, bone marrow, blood, thymus, uterus, testicles, cervix, and liver.

[c19] A method according to claim 14 wherein the antagonist is a monoclonal antibody.

[c20] A method according to claim 14 wherein the antagonist is a small molecule.